ABSTRACT OF THE DISCLOSURE

Wireless systems coverage planning uses propagation modeling to provide a prediction of service coverage. Accurate and effective wireless systems coverage analysis requires a measurement of signal strength and knowledge of the location corresponding to the measurement. Wireless signal strength, RSSI, can determined by measuring the signal received by a wireless mobile unit from the cell site antenna or can be determined by measuring the signal received by the antenna from a wireless mobile unit. The received signal strength is compared to the origination signal strength to determine path loss, RSSI. The location of a wireless mobile unit can be determined by a number of different methods. Wireless location systems can be handset-based or network-based. Examples of handset-based wireless location systems include enhanced global positioning systems; enhanced observed time difference; and estimated time of departure. Examples of network-based wireless location systems include estimated time of arrival; time difference of arrival; power level; difference of power level; angle of arrival. Each of these methods rely on the travel of a cellular signal between a mobile unit and at least one cell site. The location of a mobile wireless unit and the strength of the signal received from the mobile wireless unit are utilized to develop a set of measurement data used to evaluate the coverage effectiveness of a wireless system. In addition, these measurements facilitate the enhanced determination of likely service areas, enhanced scoring based upon traffic patterns and the enhanced effective correction of system anomalies.